

Army Programs

The Army Respiratory Protection Program

**Headquarters
Department of the Army
Washington, DC
15 February 1990**

Unclassified

SUMMARY of CHANGE

AR 11-34

The Army Respiratory Protection Program

This new regulation--

- o Implements the provisions of DOD Instructions 6055.1, the legal requirements of section 134, part 1910, title 29, Code of Federal Regulations (29 CFR 1910.134), and good practice recommendations of the American National Standards Institute (ANSI) Standard z88.2.
- o Establishes responsibilities and outlines the essential elements for the Department of the Army Respiratory Protection Program (chap 2).
- o Establishes the Installation respirator program director and installation respirator specialist position as specified in DOD Instruction 6055.1 (paras 2-7 and 2-8).

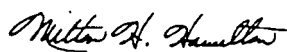
Army Programs

The Army Respiratory Protection Program

By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:



MILTON H. HAMILTON
Administrative Assistant to the
Secretary of the Army

History. This UPDATE printing publishes a new Army regulation.

Summary. This regulation establishes the Respiratory Protection Program to safeguard life and health through the proper selection,

use, care, and maintenance of respirators. It implements DOD Instruction 6055.1.

Applicability. This regulation applies to Active Army, Army National Guard, and U. S. Army Reserve elements worldwide whose military and civilian personnel are performing duties requiring respiratory protection.

Proponent and exception authority. Not applicable

Army management control process. This regulation is subject to the requirements of AR 11-2. It contains internal control provisions but does not contain checklists for conducting internal control reviews. These checklists are being developed and will be published at a later date.

Supplementation. Supplementation of this regulation and establishment of command or local forms are prohibited without prior approval from HQDA (SGPS-PSP), 5109 Leesburg Pike, Falls Church, VA 22041-3258.

Interim changes. Interim changes to this

regulation are not official unless they are authenticated by the Administrative Assistant to the Secretary of the Army. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested Improvements. The proponent agency of this regulation is the Office of The Surgeon General. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to HQDA (SGPS-PSP), 5109 Leesburg Pike, Falls Church, VA 22041-3258.

Distribution. Distribution of this publication is made in accordance with the requirements of DA Form 12-09-E, block number 5045, intended for command level C for Active Army, ARNG, and USAR.

Contents (Listed by paragraph and page number)

Chapter 1

Introduction, page 1

Purpose • 1-1, page 1

References • 1-2, page 1

Explanation of abbreviations and terms • 1-3, page 1

Safety and health factors • 1-4, page 1

Policies • 1-5, page 1

Requests for waivers • 1-6, page 1

Chapter 2

Responsibilities, page 1

The Surgeon General • 2-1, page 1

Director of Army Safety • 2-2, page 1

Commanders of major Army commands • 2-3, page 1

Installation commanders or State adjutants general • 2-4, page 1

Installation designated safety and occupational health manager • 2-5, page 2

IMA • 2-6, page 2

IRPD • 2-7, page 2

Installation respirator specialist • 2-8, page 2

Supervisors • 2-9, page 2

Facilities engineer • 2-10, page 3

Radiation protection officer • 2-11, page 3

Civilian personnel officer • 2-12, page 3

Procurement officer • 2-13, page 3

Respirator users • 2-14, page 3

Chapter 3

Essential Elements of an Effective Respiratory Protection Program, page 3

Coordination and liaison • 3-1, page 3

Installation regulations and job site standing operating procedures • 3-2, page 3

Entry into immediately dangerous to life or health environments and confined spaces • 3-3, page 3

Selection of respiratory protective devices • 3-4, page 3

Training and fit and leak testing • 3-5, page 4

Maintenance and care of respirators • 3-6, page 4

Procedures for routine worksite inspections • 3-7, page 4

Air quality • 3-8, page 4

Recordkeeping • 3-9, page 4

Appendix A. References, page 6

Glossary

Index

RESERVED

Chapter 1 Introduction

1-1. Purpose

This regulation prescribes responsibilities, policies, and the essential elements to establish, execute, and maintain the Army Respiratory Protection Program.

1-2. References

Required and related publications are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1-4. Safety and health factors

a. The goal of the Army's Occupational Safety and Health Program is to eliminate workplace hazards and the need for respiratory protective equipment (RPE).

b. Respirators are considered an acceptable method of protecting the health of Department of the Army (DA) personnel only under the following circumstances:

(1) When the installation medical authority (IMA) is satisfied that engineering or work practice controls are not adequate to control the hazard.

(2) During intermittent, nonroutine operations not exceeding 1 hour per week.

(3) During the interim periods while engineering controls are being designed, funded, and installed.

(4) During emergencies.

(5) When required by other Federal regulation or operating license.

c. The RPE will be used only for its intended purpose.

1-5. Policies

a. *Condition of employment.* The ability to use RPE will be a condition of employment when required by the job. Personnel assigned duties involving access to chemical surety materiel must be able to wear protective clothing and equipment (PCE) (AR 50-6, paras 3-13 a (3) and 6-3 g).

b. *Medical evaluation.* Workers will not be assigned to tasks requiring the use of respirators without prior medical evaluation. This medical evaluation will consist of the requirements listed in AR 40-5, TB MED 502/DLAM 1000.2, and TB MED 509. The IMA will review the medical status of the respirator user at least annually.

c. *Restrictions.*

(1) *Contact lenses.* Contact lenses will not be worn with full facepiece respirators, helmet, hood, or suit (section 134e(5)(ii), part 1910, title 29, Code of Federal Regulations (29 CFR 1910.134e(5)(ii)); American National Standards Institute (ANSI) Z88.2; and TB MED 502/DLAM 1000.2).

(2) *Facial hair.* Respirators equipped with a facepiece will not be worn if facial hair comes between the sealing periphery of the facepiece and the face, or if facial hair interferes with valve functions (ANSI Z88.2, para 3.5.8 and TB MED 502/DLAM 1000.2, para 2-7 b (4)).

d. *Hazardous area markings.* Each area and operation requiring RPE will be marked to inform personnel of the work hazards or health risks involved and the type of respirator needed. (See AR 385-30, AR 385-10, and Occupational Safety and Health Administration (OSHA) Standards for guidance.)

e. *Authority to purchase RPE.*

(1) *Civilian employees.* Respiratory protection will be furnished at no cost to the employee. The installation or activity will use appropriated fund accounts to purchase RPE. Nonappropriated fund activities will use their own funds unless authorized for appropriated fund sources, or provided for by a host-tenant agreement (AR 385-10, para 6-2).

(2) *Military personnel.* Authorization and guidance for issue of RPE to military personnel appear in the following:

(a) AR 385-10.

(b) CTA 8-100, CTA 50-900, CTA 50-909, and CTA 50-970.

(c) DA Pam 385-3.

(d) TB MED 502/DLAM 1000.2.

f. *Military protective masks.* The M9-, M17-, and the M40-series military masks protect against military chemical agents. AR 50-6 prescribes the use of these military protective masks.

(1) *Nonmilitary-unique workplaces and operations.* The military protective masks are approved for use by soldiers, civilian employees, and contractors as protection against military chemical agents in an industrial work setting (AR 385-64). However, commercially available respirators that are approved may be used. (See the glossary for definitions of "commercially available" and "approved.")

(2) *Military-unique workplaces.* The masks may be used—

(a) In urban terrain training provided the DA safety policy for training in smoke is observed.

(b) When training and field operations require entrance into confined spaces, provided sufficient oxygen is present. (The military protective masks do not provide oxygen to the wearer and, therefore, are not effective in oxygen-deficient atmospheres. Care must be taken not to enter confined spaces where oxygen may have been displaced.)

1-6. Requests for waivers

a. Respiratory protection is a command responsibility and commanders must ensure compliance. Commanders who have an existing program that does not conform to this regulation must request a waiver through command channels to the Office of The Surgeon General (HQDA (SGPS-PSP), 5109 Leesburg Pike, Falls Church, VA 22041-3258). Requests must explain the unique nature of the local installation program that precludes full compliance with this regulation.

b. Depending on an installation's structure, the responsibilities addressed in chapter 2 may have to be duplicated at lower levels such as units. In this case, a request for waiver is not required.

Chapter 2 Responsibilities

2-1. The Surgeon General

The Surgeon General will—

a. Act as principal adviser to the Chief of Staff, Army and the Army Staff on health matters, including respiratory protection.

b. Provide medical guidance and oversight to the Army Respiratory Protection Program.

2-2. Director of Army Safety

The Director of Army Safety, Office of the Chief of Staff, Army, will manage the Army Respiratory Protection Program as required by law and AR 385-10.

2-3. Commanders of major Army commands

Commanders of major Army commands (MACOMs) will ensure their subordinate commands and installations implement the actions required in chapter 3.

2-4. Installation commanders or State adjutants general

Installation commanders or State adjutants general, in addition to the responsibilities cited in AR 385-10, will—

a. Establish an installation Respiratory Protection Program according to chapter 3.

b. Provide sufficient funds, facilities, and qualified personnel to effectively and efficiently perform all duties required by the Respiratory Protection Program (chap 3).

c. Appoint an installation respirator program director (IRPD) to perform the duties in paragraph 2-7.

d. Appoint a qualified individual from the installation staff to act as the installation respirator specialist (para 3-1 a).

2-5. Installation designated safety and occupational health manager

The installation designated safety and occupational health (OH) manager and the IMA have overlapping responsibilities. If the final authority is required locally, the installation commander or State adjutant general will delineate the responsibilities in the written program. The installation designated safety and OH manager, in addition to the responsibilities cited in AR 385-10, will coordinate with the IMA to—

- a. Provide direction to the IRPD to plan, program, and annually evaluate the installation's Respiratory Protection Program.
- b. Provide guidance to the IRPD about whether the installation respirator specialist position should be full- or part-time (para 3-1 a).
- c. Coordinate with the IRPD to prepare a local implementing regulation prescribing the installation's Respiratory Protection Program (para 3-2 a).
- d. Provide guidance to supervisors in the preparation of a standing operating procedure (SOP) on respirator use in their particular work area (para 3-2 b).
- e. Approve or disapprove routine entry into an immediately dangerous to life or health (IDLH) environment (including confined spaces) (para 3-3 b).
- f. Provide training and guidance to the installation respirator specialist (paras 3-4 b and 3-5 a (2)).
- g. Perform worksite inspections to determine the type of respiratory protection best suited for the task involved (para 3-7).
- h. Conduct inspections and evaluations of the Respiratory Protection Program according to 29 CFR 1910.134 and TB MED 502/DLAM 1000.2, paragraph 2-1 f, and record any deficiencies.
- i. Conduct random inspections to determine if RPE is properly selected, used, cleaned, maintained, stored, and disposed of (TB MED 502/DLAM 1000.2, para 2-9).
- j. Coordinate with the IRPD to designate the type of RPE to be purchased or used.
- k. Coordinate with the fire department supervisor to provide training to firefighters using RPE (TB MED 502/DLAM 1000.2, para 2-7 a (8)).

2-6. IMA

The IMA will—

- a. Coordinate with the designated safety and OH manager to—
 - (1) Provide direction to the IRPD to plan, program, and annually evaluate the installation's Respiratory Protection Program.
 - (2) Provide guidance to the IRPD about whether the installation respirator specialist position should be full- or part-time (para 3-1 a).
 - (3) Coordinate with the IRPD to prepare a local implementing regulation prescribing the installation's Respiratory Protection Program (para 3-2 a).
 - (4) Provide guidance to supervisors in the preparation of an SOP on respirator use in their particular work area (para 3-2 b).
 - (5) Approve or disapprove routine entry into an IDLH environment (including confined spaces) (para 3-3 b).
 - (6) Provide training and guidance to the installation respirator specialist (paras 3-4 b and 3-5 a (1)).
 - (7) Perform worksite inspections to determine the type of respiratory protection best suited for the task involved (para 3-7).
 - (8) Conduct inspections and evaluations of the Respiratory Protection Program according to 29 CFR 1910.134 and TB MED 502/DLAM 1000.2, paragraph 2-1 f, and record any deficiencies.
 - (9) Conduct random inspections to determine if RPE is properly selected, used, cleaned, maintained, stored, and disposed of (TB MED 502/DLAM 1000.2, para 2-9).
 - (10) Coordinate with the IRPD to designate the type of RPE to be purchased or used.
 - (11) Coordinate with the fire department supervisor to provide training to firefighters using RPE (TB MED 502/DLAM 1000.2, para 2-7 a (8)).
- b. Perform medical evaluations of workers (para 1-5 b) to—

(1) Determine if workers assigned to tasks requiring the use of respirators are physically, psychologically, and physiologically able to perform work while wearing prescribed respiratory protection.

(2) Inform supervisors as to whether each employee is able to wear respiratory protection and perform work required, and coordinate with the civilian personnel office and IRPD when necessary.

(3) Review workers' medical status annually.

c. Perform fitting for corrective lenses inside full-facepiece respirators to ensure proper vision and good fit.

2-7. IRPD

The IRPD will—

- a. Plan, program, and annually evaluate the installation Respiratory Protection Program with assistance from the designated safety and OH manager and the IMA.
- b. Prepare a local implementing regulation prescribing the installation's Respiratory Protection Program in coordination with the designated safety and OH manager and the IMA (para 3-2 a).
- c. Approve any SOP prepared for respirator use before it is published (para 3-2 b).
- d. Ensure the installation respirator specialist maintains records of monthly inspections conducted on emergency-use respirators and self-contained breathing apparatus (SCBAs) (para 3-6 d and e).
- e. Coordinate with the designated safety and OH manager and IMA about the type of RPE or replacement parts to be purchased or used.
- f. Initiate prompt corrective action on deficiencies detected in the Respiratory Protection Program.

2-8. Installation respirator specialist

The installation respirator specialist will—

- a. Train or ensure that the training of supervisors and workers meets the requirements as outlined in paragraph 3-5 a (3).
- b. Perform required fit testing when issuing respirators and annually thereafter or as defined by paragraph 3-5 b .
- c. Repair respirators using only designated parts per training and authorization, or return the unit to a factory-authorized facility (paras 3-5 and 3-6 f).
- d. Coordinate with the fire department supervisor to conduct a monthly inspection of emergency use respirators and SCBAs (para 3-6 d and e).
- e. Establish the procedures for monitoring the breathing air quality for air-supplied respirators and perform quality assurance evaluations (para 3-8).
- f. Function as the central focal point for the maintenance of records (para 3-9).
- g. Issue respirators and respirator user cards after determining that all requirements for medical evaluations, training, and fit testing are met (TB MED 502/DLAM 1000.2, para 2-7 b (8)).
- h. Maintain necessary inventory levels of respirators, accessories, and spare parts (para 3-9 b).
- i. Dispose of respirators per TB MED 502/DLAM 1000.2.

2-9. Supervisors

Supervisors will—

- a. Include respirator use in their SOPs for a particular work area, as needed, with guidance from the designated safety and OH manager and the IMA and ensure areas are properly posted (para 3-2 b).
- b. Obtain approval of the SOP from the IRPD before publication (para 3-2 b).
- c. Familiarize workers with SOPs on respirator use.
- d. Not permit workers to wear contact lenses when wearing full-facepiece respirators, helmet, hood, or suit (para 1-5 c (1)).
- e. Not permit workers to perform tasks requiring respiratory protection when a respirator is not being worn or an effective fit cannot be obtained (para 1-5 c (2)).
- f. Implement the requirements for rescue and standby personnel in IDLH situations (para 3-3).
- g. Determine that compressed air breathing system alarms are

tested prior to use in potentially IDLH situations (TB MED 502/DLAM 1000.2, para 2-6 c (3)).

h. Budget for and provide RPE to personnel when required for their work (para 1-5 *e*).

i. Ensure workers perform proper respirator maintenance and care per paragraph 3-6 *a* .

j. Return nonfunctional respirators to the installation respirator specialist for replacement, repair, or proper disposal (para 3-6 *f* and *g*).

k. Include a statement in the employee's job description that the proper use of PCE is a significant job element. Consider user performance in performance appraisals.

2-10. Facilities engineer

The facilities engineer will—

a. Install and maintain breathing air systems capable of providing Grade D breathing air where required, to include the use of only “oil-free” compressors designed for breathing air systems (para 3-8).

b. Maintain compressed air breathing system alarms in an operable manner (TB MED 502/DLAM 1000.2, para 2-12 *d*).

c. Install airline couplings that are incompatible with outlets for other gas systems (para 3-8 *e*).

d. Implement a schedule of routine maintenance for servicing and inspecting airline purification panels and changing filters and cartridges as necessary.

e. Ensure that the fire department supervisor—

(1) Provides training for firefighters using RPE in coordination with the designated safety and OH manager and the IMA (TB MED 502/DLAM 1000.2, para 2-7 *a* (8)).

(2) Coordinates with the installation respirator specialist to inspect monthly the emergency use respirators and SCBAs (para 3-6 *d* and *e*).

(3) Is available for emergency situations where an SCBA would be required to enter a contaminated atmosphere.

2-11. Radiation protection officer

The radiation protection officer will evaluate the respirator use procedures to determine if the requirements of part 20, title 10, Code of Federal Regulations (10 CFR 20), and the applicable Nuclear Regulatory Commission license are followed if respirator use is based on exposure to radioactive materials (TB MED 502/DLAM 1000.2, para 2-11).

2-12. Civilian personnel officer

The civilian personnel officer will provide support to supervisors and other individuals responsible for ensuring or enforcing the Respiratory Protection Program requirements. Examples of support are: Developing job descriptions to address requirements for respirator use, identifying ability to use RPE as a condition of employment when required by the nature of the job, and documenting training per 29 CFR 1910.134.

2-13. Procurement officer

The procurement officer will—

a. Obtain only approved RPE and replacement parts as specified by the IRPD (paras 2-7 *e*, 3-4 *a*, and 3-6 *f*).

b. Provide local procurement of RPE and replacement parts when necessary (para 3-5 *b* (4)).

2-14. Respirator users

Respirators users will—

a. Be familiar with the local implementing regulation, the procedures in their job site SOP, and the available respirators.

b. Use respirators according to instructions and training (para 3-5 *a* (3)).

c. Perform positive and negative pressure tests to ensure satisfactory fitting and valve function each time respirators are used (para 3-5 *b* (3)).

d. Perform primary maintenance and cleaning of assigned respirators unless a centralized maintenance and cleaning facility exists (para 3-6 *a*).

e. Notify their immediate supervisor of a nonfunctional respirator or if it is suspected that respiratory protection is needed (ANSI Z88.2, para 3.4.3).

f. Store RPE in a clean and sanitary location within the work center to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. RPE will be packed or stored so the facepiece and exhalation valve will not be damaged by being subjected to crushing or cramming (TB MED 502/DLAM 1000.2).

g. Undergo prescribed medical surveillance when scheduled by the medical clinic.

Chapter 3

Essential Elements of an Effective Respiratory Protection Program

3-1. Coordination and liaison

a. The installation respirator specialist position will be established in writing by the installation commander. The designated safety and OH manager and the IMA will advise the IRPD as to whether the position should be full- or part-time. The occupational codes (such as, but not limited to, 2005 (Supply Clerk-Typing), 4816 (Protective and Safety Equipment Repairer Foreman), and 6904 (Tools and Parts Attendant)) may be appropriately modified to support this position.

b. An effective Respiratory Protection Program requires close liaison among workers; supervisors; local labor organizations, where applicable; the installation respirator specialist; the IRPD; the designated safety and OH manager; and the IMA to safeguard life and health through the proper selection, use, care, and maintenance of respirators. The elements in this chapter will be followed to establish an effective Respiratory Protection Program.

3-2. Installation regulations and job site standing operating procedures

a. The IRPD, in coordination with the designated safety and OH manager and the IMA, will prepare a local implementing regulation that prescribes the installation Respiratory Protection Program. This regulation will include all information and guidance necessary for proper respirator selection, use, care, and maintenance.

b. Written job site SOPs will—

(1) Be prepared by supervisory personnel with guidance from the designated safety and OH manager and the IMA and approved by the IRPD for each worksite using respirators.

(2) Describe the safe use of respirators in dangerous atmospheres that might be encountered in normal operations or in emergencies.

3-3. Entry into immediately dangerous to life or health environments and confined spaces

a. In areas where the wearer, with failure of the respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one additional person will be present with suitable rescue equipment in the form of SCBA and protective clothing. Communications (visual, voice, or signal line) will be maintained between all individuals present. Planning will be such that one individual will be unaffected by any likely incident and have the proper rescue equipment to be able to assist the others in case of an emergency.

b. No routine entry will be made into an IDLH environment (including confined spaces) without clearance from either the designated safety and OH manager or the IMA.

3-4. Selection of respiratory protective devices

a. All RPE and replacement parts will be approved except as stated in paragraph 3-6 *f*. (See the glossary for the definition of approved.)

b. The installation respirator specialist will be adequately trained to ensure that the correct respirator is issued (para 3-5 *a* (2)).

c. Selection will be based on the capabilities and limitations of respirators, environmental evaluations, human factors, and other safety considerations (TB MED 502/DLAM 1000.2, para 2-4).

d. Worker acceptance must be considered in the selection process. The effectiveness of the Respiratory Protection Program can be determined largely by the degree of worker acceptance. Workers are influenced by—

- (1) Comfort.
- (2) The ability to breathe without objectionable resistance.
- (3) Visibility under all conditions.
- (4) The ability to perform their work while wearing spectacle inserts, if necessary, with the appropriate full-facepiece respirator.
- (5) Communication.
- (6) Mobility when performing their tasks without undue interference.
- (7) Confidence in the facepiece fit.
- (8) Convincing evidence that a respirator is necessary and that appropriate action is being taken, where possible, to eliminate its need.

e. Other selection criteria are contained in TB MED 502/DLAM 1000.2.

3-5. Training and fit and leak testing

a. Training.

(1) Safety and occupational health personnel will be trained so that they can execute their assigned responsibilities (AR 385-10 and TB MED 502/DLAM 1000.2).

(2) The installation respirator specialist will be instructed in the following:

- (a) Handling, use, and maintenance of the respirators.
- (b) Respirator selection.
- (c) Records management.
- (d) Medical and safety aspects of the program.
- (e) Fitting and testing of fitted respirators.

(3) Supervisors and workers will be instructed by the installation respirator specialist and other trained individuals as appropriate. Training will provide individuals with an opportunity to handle the respirator, have it fitted properly, test its facepiece-to-face seal, wear it in normal air for an acclimatization period, and finally to wear it in a test atmosphere. Minimum training will include—

- (a) Instruction in the nature of the hazard.
- (b) Explanation of why engineering controls are not immediately feasible.
- (c) Discussions of why this is the proper type of respirator for the particular purpose and of the respirator's capabilities and limitations (TB MED 502/DLAM 1000.2, para 2-6).

(d) Periodic instruction and training in the use of the respirator (annually for emergency use respirators or as designated by specific licenses or Federal standards (such as 29 CFR 1910.1025)).

(e) Detailed instructions on maintenance and care of the respirator (para 3-6).

b. Fit and leak testing.

(1) The installation respirator specialist will provide fitting instructions, including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

(2) Before initial use and after any model change, respirator wearers will be fitted, leakage tests performed, and the facepiece-to-face seal tested in a realistic test atmosphere. This may involve qualitative or quantitative fit testing depending on the specific requirements of 29 CFR 1910 and TB MED 502/DLAM 1000.2, paragraph 2-7 b .

(3) The user will conduct positive and negative pressure tests each time the respirator is worn to ensure satisfactory fit and valve function.

(4) Local procurement of respirators is authorized to obtain a respirator with an acceptable fit.

3-6. Maintenance and care of respirators

a. The worker is responsible for the primary maintenance and cleaning of the respirator unless a centralized maintenance and cleaning facility exists. Where respirators are used collectively or kept ready for emergency use by a shop or operating activity, the

commander or supervisor of the activity will ensure maintenance and cleaning per manufacturer's instructions. This portion of the program, as established by the installation respirator specialist, will—

(1) Be adjusted for the number of types of respirators in use, working conditions, and hazards involved.

(2) Include the basic services of inspection for defects (including a leak check), cleaning and disinfecting, repair, and storage. Respirators will be properly maintained to retain their original effectiveness.

b. Respirators issued to specific individuals will be cleaned and disinfected so that skin pathogens and penetrating dermatitis-causing contaminants are removed from respirator surfaces. Respirators maintained for emergency use or used by more than one person will be cleaned and disinfected after each use.

c. Respirators placed at stations and work areas for emergency use will be stored in easily accessible compartments built for that purpose and clearly marked to indicate the contents. Routinely used respirators may be stored in plastic bags; however, respirators will not be stored in such places as lockers or tool boxes unless they are in containers or cartons.

d. All respirators will be inspected by the user before and after each use. A respirator that is not routinely used but kept ready for emergency use will be inspected after each use and at least monthly to ensure that it is in satisfactory working condition (TB MED 502/DLAM 1000.2, para 2-8).

e. A monthly inspection will be conducted on all SCBAs. Air and oxygen cylinders will be fully charged according to the manufacturer's instructions, and a determination made that the regulator and warning devices function properly.

f. Replacement or repair of respirators will be done only by the installation respirator specialist using parts designed for the respirators. No attempt will be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations. Reduction or admission valves or regulators will be returned to the manufacturer or a trained and certified technician for adjustment or repair per TB MED 502/DLAM 1000.2.

g. Disposal will be done only by the installation respirator specialist per TB MED 502/DLAM 1000.2.

3-7. Procedures for routine worksite inspections

Procedures for routine worksite inspections are given in TB MED 502/DLAM 1000.2, paragraph 2-9.

3-8. Air quality

a. Breathing air for respirators may be supplied from cylinders or air compressors. The requirements for Grade D breathing air will be met as defined in ANSI/Compressed Gas Association (CGA) Specification G-7.1 per 29 CFR 1910.134.

b. Cylinders will be tested and maintained as prescribed in AR 700-68/DLAR 4145.25/NAVSUPINST 4440.128/MCO 10330.2/AFR 67-12 and part 178, title 49, Code of Federal Regulations (49 CFR 178).

c. The compressor for supplying breathing air will be equipped with the necessary safety and standby devices given in TB MED 502/DLAM 1000.2, paragraph 2-12 d .

d. Compressed oxygen will not be used in supplied air respirators or in open circuit SCBAs that have previously used compressed air. Oxygen will never be used with airline respirators.

e. Airline couplings will be incompatible with outlets for other gas systems to prevent inadvertent servicing of airline respirators with nonrespirable gases or oxygen. Installation areas having heavy piping or outlet areas with more than one type of gas system will be properly marked with labels, signs, or color coded connectors to further prevent attempts to connect to nonrespirable air supplies.

f. Breathing gas containers will be marked according to TB MED 502/DLAM 1000.2, paragraph 2-12f.

3-9. Recordkeeping

a. Local records of respirator training and fit and leak testing will

be kept by the installation respirator specialist for at least the duration of employment of each covered soldier and civilian worker or as specified because of a specific contaminant exposure. (See AR 25-400-2 and TB MED 502/DLAM 1000.2, para 2-7 *b* (7).)

b. The installation respirator specialist is the central focal point for the maintenance of records such as—

- (1) The date of issue and return of respirators.
- (2) The training provided to supervisors and workers on the use, general maintenance, fit and leak testing, and limitations of respirators.
- (3) The inventory of respirators and the parts necessary to repair those respirators.
- (4) The regular inspections conducted on respirators.
- (5) Other pertinent records as necessary.

Appendix A References

Section I Required Publications

ANSI/CGA Specification G-7.1

Commodity Specification for Air. (Cited in para 3-8 *a* .) (This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

AR 25-400-2

The Modern Army Recordkeeping System (MARKS). (Cited in para 3-9 *a* .)

AR 40-5

Preventive Medicine. (Cited in para 1-5 *b* .)

AR 50-6

Nuclear and Chemical Weapons and Materiel, Chemical Surety. (Cited in para 1-5 *a* and *f* .)

AR 385-10

Army Safety Program. (Cited in paras 1-5 *d* , 1-5 *e* (1) and (2)(*a*), 2-2, 2-4, 2-5, 3-5 *a* (1) and the glossary.)

AR 385-30

Safety Color Code Markings and Signs. (Cited in para 1-5 *d* .)

AR 385-64

Ammunition and Explosive Safety Standards. (Cited in para 1-5 *f* (1).)

AR 700-68/DLAR 4145.25/NAVSUPINST 4440.128/MCO 10330.2/AFR 67-12

Storage and Handling of Compressed Gases and Gas Cylinders. (Cited in para 3-8 *b* .)

CTA 8-100

Army Medical Department Expendable/Durable Items. (Cited in para 1-5 *e* (2)(*b*).)

CTA 50-900

Clothing and Individual Equipment. (Cited in para 1-5 *e* (2)(*b*).)

CTA 50-909

Field and Garrison Furnishings and Equipment. (Cited in para 1-5 *e* (2)(*b*).)

CTA 50-970

Expendable/Durable Items (Except: Medical Class V, Repair Parts, and Heraldic Items). (Cited in para 1-5 *e* (2)(*b*).)

DA Pam 385-3

Protective Clothing and Equipment. (Cited in para 1-5 *e* (2)(*c*).)

TB MED 502/DLAM 1000.2

Respiratory Protection Program. (Cited in paras 1-5 *b* , *c* (1) and (2), and *e* (2)(*d*); 2-5 *h* , *i* , and *k* ; 2-6 *a* (8), (9), and (11); 2-8 *g* and *i* ; 2-9 *g* ; 2-10 *b* and *e* (1); 2-11; 2-14 *f* ; 3-4 *c* and *e* ; 3-5 *a* (1), *a* (3)(*c*), and *b* (2); 3-6 *d* , *f* , and *g* ; 3-7; 3-8 *c* and *f* ; and 3-9 *a* .)

TB MED 509

Spirometry in Occupational Health Surveillance. (Cited in para 1-5 *b* .)

Occupational Safety and Health Administration (OSHA) Standards

(Cited in para 1-5 *d* .) (OSHA publications are available from Technical Data Center, U.S. Department of Labor, 200 Constitution Ave., N.W., WASH DC 20001.)

Section II Related Publications

A related publication is merely a source of additional information. The user does not have to read it to understand this regulation.

ANSI Z88.2

Practices for Respiratory Protection. (This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

ANSI Z88.5

Practices for Respiratory Protection for the Fire Service. (This publication is available from the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018.)

AR 385-63/MCO P3570.1

Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat.

NFPA Publication No. FSP-29B

Fire Officer's Guide to Breathing Apparatus for the Fire Service. (This publication is available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.)

NRC Regulatory Guide 8.15

Acceptable Programs for Respiratory Protection. (U.S. Nuclear Regulatory Commission (USNRC) publications are available from the Director, Office of Standards Development, USNRC, WASH DC 20555.)

TB MED 506

Occupational Vision.

TB MED 513

Guidelines for the Evaluation and Control of Asbestos Exposure.

USAEHA Technical Guide No. 144

Guidelines for Controlling Health Hazards in Painting Operations. (U.S. Army Environmental Hygiene Agency (USAEHA) publications are available from Commander, U.S. Army Environmental Hygiene Agency, ATTN: HSHB-CI, Aberdeen Proving Ground, MD 21010-5422.)

US DHEW (NIOSH) Publication No. 80-106

Criteria for Recommended Standard—Working in Confined Spaces. (National Institute for Occupational Safety and Health (NIOSH) publications are available from Publications Dissemination, DTS, NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226.)

US DHHS (NIOSH) Publication No. 87-108

NIOSH Respirator Decision Logic. (NIOSH publications are available from Publications Dissemination, DTS, NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226.)

US DHHS (NIOSH) Publication No. 87-116

NIOSH Guide to Industrial Respiratory Protection. (NIOSH publications are available from Publications Dissemination, DTS, NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226.)

US DHHS (NIOSH) Publication No. 89-105

NIOSH Certified Equipment List. (NIOSH publications are available from Publications Dissemination, DTS, NIOSH, 4676 Columbia Parkway, Cincinnati, OH 45226.)

Glossary

Section I Abbreviations

ANSI

American National Standards Institute

CGA

Compressed Gas Association

DA

Department of the Army

IDLH

immediately dangerous to life or health

IMA

installation medical authority

IRPD

installation respirator program director

MACOM

major Army command

NFPA

National Fire Protection Association

NIOSH

National Institute for Occupational Safety and Health

NRC

Nuclear Regulatory Commission

OH

occupational health

OSHA

Occupational Safety and Health Administration

PCE

protective clothing and equipment

RPE

respiratory protective equipment

SCBA

self-contained breathing apparatus

SOP

standing operating procedure

US DHEW

U.S. Department of Health, Education, and Welfare

US DHHS

U.S. Department of Health and Human Services

Section II Terms

Approved

Tested and listed as satisfactory according to standards established by a competent authority (such as National Institute for Occupational Safety and Health, Mine Safety and

Health Administration, or host country agency) to provide respiratory protection against the particular hazard for which it is designed. For military agent protection, the Department of the Army and Department of Defense are the approval authorities. (Approval authority may be specified by law.)

Commercially available

The commercial manufacture of an appropriate respirator, not the availability or the inability of installation personnel to procure an appropriate respirator.

Confined space

A space that by design has limited openings for entry and exit; unfavorable natural ventilation that could contain or produce dangerous air contaminants, and is not intended for continuous employee occupancy. Confined spaces include but are not limited to storage tanks, compartments of ships, process vessels, pits, silos, vats, degreasers, reaction vessels, boilers, ventilation and exhaust ducts, sewers, tunnels, underground utility vaults, and pipelines.

Contaminant

A harmful, irritating, or nuisance material in concentrations exceeding those normally found in the ambient air.

Designated safety and occupational health manager

A manager designated by each MACOM and installation commander to assist in the implementation of the safety program and occupational safety and health requirements (AR 385–10).

Disinfection

The destruction of pathogenic organisms, especially by means of chemical substances.

Emergency

An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for escape from or entry into the hazardous atmosphere to carry out maintenance or some other task. (This may or may not include cleanup, maintenance, or repair in unknown concentrations or oxygen deficiency.)

Evacuation or escape

An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for exiting the area only. (This does not include cleanup, maintenance, or repair in unknown concentrations or oxygen deficiency.)

Immediately dangerous to life or health

A condition posing an immediate threat to life or health, or an immediate threat of severe exposure to contaminants likely to have

adverse delayed effects on health. This condition includes atmospheres where oxygen content by volume is less than 16 percent (29 CFR 1910.134g(5)).

Installation medical authority

The unit surgeon, command chief surgeon, U. S. Army medical department activity/U.S. Army medical center commanders, or the director of health services or his or her designated representative responsible for provision of medical support at the unit, command, or installation concerned.

Installation respirator specialist

An individual appointed by the installation commander and trained by the designated safety and OH manager and the IMA to act as controller and maintenance specialist for all RPE.

Installation safety and OH manager

Principal staff adviser, technical consultant, and coordinator to the commander and the staff in planning, organizing, directing, and evaluating all installation safety program elements (AR 385–10).

Intermittent nonroutine operations

Operations occurring for 1 hour per day, 1 day per week. Operations that occur for 150 hours per year are not considered intermittent nonroutine operations.

Military chemical agent

A chemical compound used in military operations to kill, seriously injure, or incapacitate persons through its chemical properties. Excluded are research, development, test, and evaluation dilute solutions; riot control agents; chemical defoliants and herbicides; smoke, flame, and incendiaries; and industrial chemicals.

Oxygen-deficient atmosphere

An atmosphere containing 19.5 percent or less oxygen by volume (section .3aa, part 11, title 30, Code of Federal Regulations (30 CFR 11.3aa). Also, see ANSI Z88.2.

Respirator

A device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants and, for some devices, oxygen-deficient atmospheres.

Respirator center

The central repository and control point for all RPE. All equipment will be issued and serviced at this point.

Workplace

a. Nonmilitary-unique workplaces and operations. DA military and civilian workplaces and operations that are similar to those of private industry. Examples include facilities used for and work performed in the repair and overhaul of vessels, aircraft, or vehicles (except for equipment trials); construction;

supply services; civil engineering or public works; medical services; and office work.

b. Military-unique equipment, systems, operations, or workplaces.

(1) Equipment and systems that are unique to the national defense mission, including the operation, testing, and maintenance procedure dictated by design configuration. Examples are military weapons, aircraft, ships, submarines, missiles and missile sites, early warning systems and sites, military space systems, ordnance, tanks, and tactical vehicles.

(2) Operations or workplaces that are uniquely military, such as field maneuvers; combat training; naval operations; military flight and missile operations; associated research, test and development activities; and actions required under emergency conditions.

(3) Toxic chemical munitions or agents storage, maintenance, and demilitarization.

Section III

Special Abbreviations and Terms

There are no special terms.

Index

This index is arranged alphabetically by topic and by subtopic within topic. Topics and subtopics are identified by paragraph number.

Air quality, 3–8. See also breathing air

Approved, 1–5 *f* (1), 2–13 *a*

Area markings, 1–5 *d*

Authority to purchase RPE, 1–5 *e*

Civilian employees, 1–5 *e* (1)

Military personnel, 1–5 *e* (2)

Breathing air, 2–8 *e*, 2–10 *a–b*, 3–8 *a*. See also air quality

Chemical agents, 1–5 *f*

Civilian personnel officer, 2–12

Commanders of major Army commands, 2–3

Conditions of employment, 1–5 *a*, 2–9 *k*, 2–12

Confined spaces, 2–5 *e*, 3–3

Contact lenses, 1–5 *c* (1), 2–9 *d*

Director of Army Safety, 2–2

Essential Elements of an Effective Respiratory Program

Air quality, 3–8

Fit testing, 3–5 *b*

Immediately dangerous to life or health environments, 3–3

Maintenance, 3–6

Recordkeeping, 3–9

Regulations, 3–2 *a*

Selection, 3–4

SOPs, 3–2 *b*

Training, 3–5 *a*

Worksite inspections, 3–7

Facial hair, 1–5 *c* (2)

Facilities engineer, 2–10

Fire department supervisor, 2–8 *d*, 2–10 *e*

Fit testing, 2–8 *b*, 3–5 *b*, 3–9 *b* (2)

Immediately dangerous to life or health, 2–5 *e*, 2–6 *a* (5), 2–9 *f–g*, 3–3

Implementing regulations, 2–5 *c*, 2–7 *b*, 3–2 *a*

Intermittent operations, 1–4 *b* (2)

Installation commander, 2–4, 2–5

Installation safety, 2–5

Installation medical authority, 2–6

Installation respirator program director, 2–4 *c*, 2–5 *j*, 2–6 *a* (1), 2–7

Installation respirator specialist, 2–4 *d*, 2–5 *f*, 2–8, 3–1 *a*, 3–4 *b*, 3–5 *a* (2), 3–5 *b* (1)

Maintenance, 2–9 *i*, 2–10 *d*, 2–14 *d*, 3–6

Medical evaluation, 1–5 *b*, 2–6 *b*, 2–8 *g*

Medical surveillance, 2–14 *g*

Military personnel, 1–5 *e* (2)

Military protective masks, 1–5 *f*

Military-unique workplaces, 1–5 *f* (2)

Nonmilitary-unique workplaces, 1–5 *f* (1)

Nonroutine operations. See Intermittent operations

Oxygen-deficient, 1–5 *f* (2)(*b*), 3–3 *a*

Policies

Condition of employment, 1–5 *a*

Medical evaluation, 1–5 *b* *See also* medical surveillance

Military protective masks, 1–5 *f*

Military-unique workplaces, 1–5 *f* (2)

Required use, 1–4 *b* (5), 1–5 *a*

Procurement, 2–13 *b*, 3–5 *b* (4)

Procurement officer, 2–13

Radiation protection officer, 2–11

Records, 2–7 *d*, 2–8 *f*, 3–9

Responsibilities

Civilian personnel officer, 2–12

Commanders of major Army commands, 2–3

Director of Army Safety, 2–2

Facilities engineer, 2–10

Fire department supervisor, 2–10 *e*

Installation commander, 2–4

Installation safety and occupational health manager, 2–5

Installation medical authority, 2–6

Installation respirator program director, 2–7

Installation respirator specialist, 2–5 *b*, 2–8

Procurement officer, 2–13

Radiation protection officer, 2–11

Respirator users, 2–14, 3–5 *a* (3)

State adjutants general, 2–4, 2–5

Supervisors, 2–9

The Surgeon General, 2–1

Restrictions

Contact lenses, 1–5 *c* (1)

Facial hair, 1–5 *c* (2)

Warning signs, 1–5 *d*

Selection of respiratory protective devices, 3–4

Standing operating procedure, 2–5 *d*, 2–6 *a* (4), 2–7 *c*, 2–9 *a–c*, 3–2 *b*

State adjutants general, 2–4, 2–5

Surety materiel, 1–5 *a*. See also chemical agents

Supervisors, 2–9, 3–5 *a* (3)

The Surgeon General, 2–1

Training

Firefighters, 2–5 *k*, 2–6 *a* (11), 2–10 *e* (1)

Installation respirator specialist, 2–5 *f*, 2–6 *a* (6), 3–4 *b*, 3–5 *a*, 3–5 *b* (1)

Recordkeeping, 3–9 *b* (2)

Respirator users, 2–14 *b*, 3–5 *a* (3)

Safety and OH personnel, 3–5 *a* (1)

Supervisors, 2–8 *a*, 3–5 *a* (3)

Waivers, 1–6

Warning signs, 1–5 *d*

Worksite inspections, 3–7

Unclassified

PIN 067365-000

USAPA

ELECTRONIC PUBLISHING SYSTEM
TEXT FORMATTER ... Version 2.45

PIN: 067365-000

DATE: 11-03-98

TIME: 15:14:08

PAGES SET: 13

DATA FILE: s535.fil

DOCUMENT: AR 11-34

DOC STATUS: NEW PUBLICATION